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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,757	08/14/2000	Peter Dean LaFauci	RAL9-2000-0070-US1	9942

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IBM CORPORATION
PO BOX 12195
DEPT 9CCA, BLDG 002
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

WILSON, YOLANDA L

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/638,757

Applicant(s)

LAFAUCI ET AL.

Examiner

Yolanda Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,13,16,17 is/are allowed.
- 6) ☒ Claim(s) 1-5,7-12,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 6,13,16,17 are allowed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7-12,14,15 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (USPN 6178533B1). As appears in claim 1, Chang providing a set of transactions characterizing a bus architecture, selecting a subset of said set of transactions applicable to a design-under-test (DUT) and generating a configuration file for verifying said DUT from said subset in column 2, lines 12-17, "Each transaction is assigned a user-defined weight that is used to bias the frequency that a transaction type is tested. The test verification system selects a particular transaction category based on the user-defined weights and generates the corresponding instructions or test patterns that implement the transaction." and column 4, lines 16-19, "A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly."

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4. As per claim 2, Chang discloses generating a test case comprising bus transactions from said configuration file in column 4, lines 46-48, "The test generator engine 154 receives the weights input file 138 and generates two files of test patterns 156,158."

5. As per claim 3, Chang discloses applying said test case to said DUT to verify said DUT in column 6, lines 20-23, "Next, the test pattern files 156,158, are transmitted to a target processor or simulation engine 159 which uses the test pattern files 156,158 to verify the functionality of the microprocessor (step 172)."

6. As per claim 4, Chang discloses providing a comprehensive set of bus transactions characterizing a bus architecture, creating a configuration file specific to a DUT from said comprehensive set, generating parameterized bus transactions from said configuration file in column 2, lines 12-17, "Each transaction is assigned a user-defined weight that is used to bias the frequency that a transaction type is tested. The test verification system selects a particular transaction category based on the user-defined weights and generates the corresponding instructions or test patterns that implement the transaction." and column 4, lines 16-19, "A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly."

7. As per claim 5, Chang discloses providing a user interface which presents a user with possible transaction types for said bus architecture, entering inputs corresponding to a specific DUT via said interface, processing said inputs to generate said configuration file in column 4, lines 16-19, "A user enters into the

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weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly.” and in column 4, lines 46-48, “The test generator engine 154 receives the weights input file 138 and generates two files of test patterns 156,158.”

8. As per claim 7, Chang discloses inputs specify parameters for application to said specific DUT in column 4, lines 16-19, “A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly.”

9. As per claim 8, Chang discloses applying said parameterized transactions to said DUT to determine compliance of said DUT with said bus architecture in column 6, lines 20-23, “Next, the test pattern files 156,158, are transmitted to a target processor or simulation engine 159 which uses the test pattern files 156,158 to verify the functionality of the microprocessor (step 172).”

10. As per claim 9, Chang discloses providing a table having entries corresponding to a set of transactions of a bus architecture, applying inputs corresponding to a specific DUT to said table, modifying said entries using said inputs, generating a configuration file for verifying said DUT from said modified entries in column 2, lines 12-17, “Each transaction is assigned a user-defined weight that is used to bias the frequency that a transaction type is tested. The test verification system selects a particular transaction category based on the user-defined weights and generates the corresponding instructions or test

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patterns that implement the transaction.” and column 4, lines 16-19, “A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly.”

11. As per claim 10, Chang discloses applying is performed with a user interface in column 4, lines 16-19, “A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly.”

12. As per claim 11, Chang discloses generating a DUT test case from said configuration file in column 4, lines 46-48, “The test generator engine 154 receives the weights input file 138 and generates two files of test patterns 156,158.”

13. As per claim 12, Chang discloses applying selected parameters for verifying a DUT to a table including a set of transactions characterizing a bus architecture, modifying entries in said table in accordance with said parameters, generating a configuration file for verifying said DUT from said modified entries in column 2, lines 12-17, “Each transaction is assigned a user-defined weight that is used to bias the frequency that a transaction type is tested. The test verification system selects a particular transaction category based on the user-defined weights and generates the corresponding instructions or test patterns that implement the transaction.” and column 4, lines 16-19, “A user enters into the weight file 138 the types of transactions that are to be tested as well as the

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frequency that each transaction is to be tested by setting the associated weight 142 accordingly.”

14. As per claim 14, Chang discloses processing said configuration file to create a test case for said DUT in column 4, lines 46-48, “The test generator engine 154 receives the weights input file 138 and generates two files of test patterns 156, 158.”

15. As per claim 15, Chang discloses a memory including computer-executable instructions in Figure 1, label 106. Chang discloses a processor coupled to said memory for executing said instructions in Figure 1, label 102. Chang discloses a table including transactions characterizing a bus architecture, wherein said instructions support a user interface for entering inputs to generate a specific DUT configuration file from said table said configuration file including parameters and rules for verifying said DUT in column 2, lines 12-17, “Each transaction is assigned a user-defined weight that is used to bias the frequency that a transaction type is tested. The test verification system selects a particular transaction category based on the user-defined weights and generates the corresponding instructions or test patterns that implement the transaction.” and column 4, lines 16-19, “A user enters into the weight file 138 the types of transactions that are to be tested as well as the frequency that each transaction is to be tested by setting the associated weight 142 accordingly.”

Response to Arguments

16. Applicant's arguments filed 12/4/03 have been fully considered but they are not persuasive. Applicant states ‘Chang et al. reference does not provide a

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set of transactions characterizing a bus architecture or any variation of the teaching as set forth in the rejected claims. Transactions which Chang reference discloses are memory related transactions shown in Figure 3 and described at col. 3, lines 41-67 through col. 4, lines 1-21. Nowhere in Chang could applicants find a teaching where a set of transactions characterizing a bus architecture or variation thereof is found'. Examiner respectfully disagrees with this statement.

As disclosed in column 5, lines 3-7, "The second test pattern file 158 includes test patterns representing simulation commands used to test the bus traffic on the primary bus. These commands represent the DMA operations between the bus agents on the primary and secondary buses and the microprocessor's memory." In order to test a bus information has to be transferred from one place to another to know if the buses are performing correctly. In this case memory operations are being processed over two buses. Chang states in column 5, lines 13-17, "The eight read_continue statements are commands that are used by the simulation engine to predict the response of the bus control unit in completing the DMA operation by returning the requested data to the requesting bus agent in order to verify that the data being returned is indeed correct." The transactions that are used in the test pattern files would have to be in a bus architecture language specific or well known to the bus used in the computing system in order for the transactions to occur.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda Wilson whose telephone number is (703) 305-3298. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100